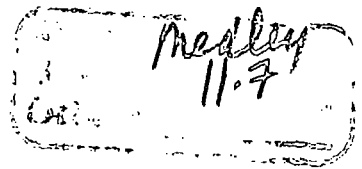


KING & SPALDING

2500 TRUST COMPANY TOWER
ATLANTA, GEORGIA 30303
404/572-4600



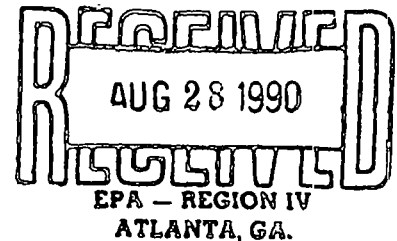
TELEX: 54-2917 KINGSPALD ATL
TELECOPIER: 404 572-5100
CABLE: TERMINUS

August 27, 1990

1730 PENNSYLVANIA AVENUE, N. W.
SUITE 1200
WASHINGTON, D. C. 20006
202/737-0500
TELECOPIER: 202 737-5714

BY HAND DELIVERY

Mr. Jon K. Bornholm
Remedial Project Manager
United States Environmental
Protection Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365



Re: Medley Farm Site - Phase II Remedial Investigation

Dear Mr. Bornholm:

I am writing on behalf of the Medley Farm Site Steering Committee. The Steering Committee's response to EPA's comments on the Work Plan for the Phase II Remedial Investigation at the Medley Farm Site is attached. This response was prepared by the Steering Committee's consultant, Sirrine Environmental Consultants. We have indicated at appropriate points in the response where decisions to address the comments were made and agreed to by you, on behalf of EPA, in conference calls on August 8, 1990 and August 10, 1990. This letter will also confirm the decisions agreed upon during those conferences. As you know, we just received on Friday, August 24, 1990 the comments from the South Carolina Department of Health and Environmental Control ("SCDHEC") on the Work Plan. I appreciate your telecopying them to me. We will respond to those comments as soon as possible.

As we discussed and agreed upon in our telephone conference on August 8, 1990, the soil sampling took place on August 9, 1990. In accordance with our discussions, the sampling locations were as outlined in the Work Plan. You agreed with Sirrine's response to comment number 24 that the sampling locations were based on a 100-foot grid sufficient to provide representative samples of the overall Site conditions. In addition, the Steering Committee informed you during the August 8, 1990 conference that it would, in response to comment 25, analyze three of the surface soil samples taken from the former disposal areas for TAL metals.

In our conference call with you and your consultants, Versar, on August 10, 1990, we discussed and agreed upon responses to

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Mr. Jon K. Bornholm
August 27, 1990
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comments regarding use of the Hydropunch and locations of the saprolite and bedrock wells. You indicated that you believed EPA Region IV would accept analysis of samples taken using the Hydropunch method as valid data for determining levels of contaminants at a particular location. If the agency would not accept such analysis, the Steering Committee explained they would need to consider an alternate method of determining where certain wells should be placed. You agreed to notify us as soon as possible if that proved to be the case. Otherwise, after further explanation of the Hydropunch method, you and the Versar staff agreed that the proposed use of the Hydropunch as outlined in the Work Plan was appropriate. The Steering Committee informed you that in response to your comments numbered 29 and 30, it would install PVC piezometers simply for the purpose of measuring levels of groundwater in the Hydropunch boreholes following sampling with the Hydropunch.

In response to your comment number 31, Jim Chamness, with Sirrine, explained the rationale for limiting the depth of the bedrock well BW105 to 50 feet. You and the Versar representatives agreed with the explanation that coring to this depth would minimize the potential for creating a pathway for vertical migration of contaminants into portions of the bedrock aquifer not otherwise impacted. You also agreed that the necessity for drilling deeper, or for alternative measures to determine the vertical extent of contamination, could be assessed following the initial drilling.

We also discussed, in response to your comment number 36, the need for additional wells in the vicinity of the existing well SW3. We all agreed that an additional bedrock well would be installed adjacent to SW3, or at a location northwest of SW3, depending on accessibility. In addition, we agreed to install a saprolite well at the location of the proposed stream gauging stations SL3 and SL4. This well may have to be installed using hand tools due to difficulties in accessing that location. You also agreed that these additional wells would eliminate the need for the proposed surface water/sediment samples proposed in your comment number 37. The Steering Committee informed you that it agreed with comment number 40 and would, therefore, change the placement of well pair SW107/BW107.

In the August 10, 1990, conference call, we also discussed the proposals in the Work Plan to confirm that metals are not contaminants of concern at the Site. We explained that we would take both filtered and unfiltered samples from the existing background well, and would further develop the background well to better assess the background levels of metals at the Site. Analyzing soil samples for TAL metals, as discussed above, will

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also contribute to this effort. You agreed that these actions were responsive to comments 17 and 18.

We also discussed the Work Plan proposals to confirm that the Sprouse well has not been impacted by the Site. We discussed the use of the piezometer to provide additional data regarding groundwater flow northwest of the Site. We explained our concerns about sampling the Sprouse well and offered to measure the depth of the Sprouse well to add additional information for finally determining whether the well has been impacted by the Site. The piezometer will also be installed early in the Phase II Remedial Investigation so that we can determine whether additional investigation is necessary to confirm that the Sprouse well has not been impacted. You agreed with this approach. If water levels obtained from the piezometer do not confirm that the Sprouse well is upgradient, we will contact you to discuss the need for further investigation.

The responses discussed in our conference calls on August 8 and August 10 are reiterated and discussed further in the attached response to EPA's comments. This letter is simply to confirm the agreements reached in the conference calls. As we discussed during those conferences, the field work is proceeding according to the schedule outlined in the Work Plan. As noted above, the soil sampling took place on August 9, 1990. In addition, drill rigs were mobilized on the Site the week of August 13, 1990 and work was begun on redeveloping the background well.

The Steering Committee and Sirrine will provide you with frequent reports on the progress of the field work. We understand the need to assure that the schedule outlined in the Work Plan is met.

If you have any questions regarding our response to EPA's comments, please contact me at 572-3585.

Sincerely,

A handwritten signature in cursive script that reads "Mary Jane Norville /asm".

Mary Jane Norville

MJN/da
Enclosure
39004.44003

cc: Mr. Keith Lindler, SCDHEC
Mr. Gary Stewart, SCDHEC
Mr. Jim Chamness, Sirrine
Medley Farm Site Steering Committee

**RESPONSE TO EPA COMMENTS (DATED AUGUST 3, 1990)
ON THE:
PHASE II RI/FS WORK PLAN FOR THE
MEDLEY FARM SUPERFUND SITE**

August 13, 1990

**Prepared By: Sirrine Environmental Consultants, Inc.
Post Office Box 24000
Greenville, South Carolina 29616**

The following responses to the Agency's comments provide clarification of the proposed Phase II RI/FS activities for this site. Upon Agency approval, this document will supplement the Phase II RI/FS Work Plan (dated July 11, 1990) and the approved Project Operations Plan (dated January 1989) which describes in detail the activities and procedural protocols for this work.

<u>EPA COMMENT</u>	<u>WORK PLAN REFERENCE</u>	<u>RESPONSE</u>
1	Page 1, 1.0	Based upon our evaluations of all data gathered to date, treatability studies will not be necessary for the design of anticipated remedies for this site.
2	Page 4, last line	Phase IV should read Phase IB.
3	Page 8, 1.4	See response to Comment #1.
4 and 5	Page 8, 1.4, Typo's	Acknowledged
6	Page 9, 1.4	Phase II, RI field investigations will be completed by October 12, 1990. The time frame for "Field Investigations" includes turn around time for laboratory analyses. The Steering Committee will advise EPA if these activities are completed sooner than anticipated.
7	Page 10, 2.1	Field screening will not be used for the selection of samples during Phase II RI activities. Field screening will be utilized for Health and Safety purposes and general information only.

Response to EPA Comments
Phase II RI/FS Work Plan
Medley Farm Site
August 20, 1990

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| 8 | Page 10, 2.2 | A Teflon and stainless steel bladder pump mounted between pneumatic packers will be used to collect ground-water samples from discreet intervals in the fractured bedrock aquifer. |
| 9 | Page 11, Table 2.1 | "Surface" soil samples will be collected from the depth intervals as indicated in the first bullet on this Table: 0 to 24 inches. |
| 10 | Page 11, Table 2.1 | See response to Comment #1. |
| 11 | Page 12, Table 2.2 | See response to Comment #9 |
| 12 | Page 12, Table 2.2 | Sirrinc will advise the Superfund Project Manager or the on-site EPA Oversight representative of Field work schedules to facilitate the collection of EPA split samples by the Oversight contractor. |
| 13 | Page 12, Table 2.2 | Both filtered and unfiltered samples will be collected from the background wells (SWI and BWI) and analyzed for TAL inorganics. |
| 14 | Page 12, Table 2.2 | See response to Comment #7. |
| 15 | Page 13, 2.3.1 | Twelve <u>surface</u> soil samples will be collected and analyzed for ... |
| 16 | Page 13, 2.3.1 | As discussed in the draft RI Report prepared on the basis of Phase I site investigations, levels of inorganics, PCB,s and pesticides detected in soil samples analyzed from the site are consistent with |
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Response to EPA Comments
Phase II RI/FS Work Plan
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August 20, 1990

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background levels and agricultural land use. "Significant levels" as used in the text at page 13, 2.3.1, are defined as levels above background or established action levels.

17 Page 15, 2.3.2

The revised tables were submitted to EPA on June 29, 1990 and will be included in the revised RI Report. The absence of VOC's and SVOC's in background wells SW-1 and BW-1 indicate no impact to groundwater from former disposal activities at this location. The Phase I RI soils and groundwater analysis indicated that concentrations of inorganics at the site are consistent with local background levels. Additional sampling and analysis is included in the Phase II RI to provide further substantiation of this. A review of field sampling logs indicates that slightly elevated levels of inorganics noted in the analysis of groundwater samples from SW1 are due to sample turbidity. This well will be re-developed prior to Phase II sampling to alleviate this problem.

This approach was discussed and agreed upon in our conference call of August 9, 1990.

18 Page 15, 2.3.2

Both filtered and unfiltered samples will be collected and analyzed for TAL metals from monitoring well SW-1 during the Phase II RI.

19 Pages 17 and 18
Tables 2.4 and 2.5

These tables were designed to be used together.

**Response to EPA Comments
Phase II RI/FS Work Plan
Medley Farm Site
August 20, 1990**

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| 20 | Page 19, 2.4 | Equipment decontamination procedures included in the P.O.P. dated January, 1989 were approved for this project. A copy of correspondence sent from the agency to King & Spalding dated 16 May, 1989 confirming this is attached. |
| 21 | Page 19, Table 2.4 | <p>All Phase II RI/FS field work will be performed in accordance with EPA, Region IV Standard Operating Procedures and modifications approved by the EPA RPM as described in the P.O.P. and associated correspondence for this project.</p> <p>See response to Comment #20.</p> <p>This was discussed and agreed upon during our conference call on August 9, 1990.</p> |
| 22 | Page 20, Table 2.6 | <p>See response to Comment #17.</p> <p>Since the Sprouse well may have been impacted from sources not related to the Medley Farm site such as the Sprouse septic facilities or poor well head practices, analysis of samples collected from the Sprouse well would not provide any additional conclusive data.</p> <p>The Sprouses will be contacted to obtain permission to measure the total depth and depth to ground-water of the Sprouse well.</p> <p>Piezometer PZ101 will also be installed to confirm that the Sprouse well is upgradient of the site. This data will be evaluated to determine if any other action is required.</p> <p>This approach was discussed during our conference call on August 9, 1990.</p> |

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| 23 | Page 20, Table 2.6 | See response to Comments #15 and #17. |
| 24 | Page 23, 3.2 | <p>The proposed sampling locations were based upon a 100 foot grid over the former disposal area which was modified based upon knowledge of site conditions to provide samples representative of overall site conditions (i.e. areas covered by fill placed during the emergency removal action as well as former lagoon and drum disposal sites where no fill is present and erosion has occurred).</p> <p>This approach was agreed upon during our phone conversation of August 8, 1990.</p> |
| 25 | Page 23, 3.2 | As agreed upon during our phone conversation of August 8, 1990, three of the surface soil samples collected from the former disposal area will be subjected to TAL metals analysis in addition to the three background surface soil samples. |
| 26 | Page 24, 4.0 | <p>An additional bedrock well will be installed in the vicinity of SW3 or at the preferred site Northeast of SW3, between the former disposal area and the intermittent creek. The actual location, however, will be based upon accessibility.</p> <p>Since existing data indicate that groundwater has been impacted in this area, Serrine does not see any need for an additional saprolite well between SW3 and SW4.</p> <p>These points were discussed and agreed upon during our conference call of August 9, 1990.</p> |

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27 Page 24, 4.0

All drilling procedures will be in accordance with the approved POP. This generally involves installing saprolite wells through hollow stem augers and continuous bedrock coring for bedrock well construction.

28(a) Page 24, 4.2

If a ground-water sample cannot be collected with the HydropunchTM at a specific location, a saprolite well or saprolite/bedrock well pair will be installed at the designed location.

This was agreed upon during our conference call on August 9, 1990.

28(b) Page 24, 4.2

The density of piedmont saprolites is too great to push the HydropunchTM from the surface to the depths required at the Medley Farm site. Hollow stem augers will, therefore, be utilized to advance a borehole to approximately five feet below the water table to facilitate the collection of ground-water samples with the HydropunchTM.

29 & 30 Page 25, 4.2

PVC piezometers will be installed for ground-water level measurement in all HydropunchTM boreholes after ground-water sampling has been accomplished. These piezometers will include silica filter packs, bentonite and neat cement seals and protective casings. These installations will be constructed in accordance with applicable SCDHEC and EPA well construction regulations.

31 Page 25, 4.3

The proposed total depth of bedrock well BW105 has been limited to 50 feet to minimize the potential for creating a preferential pathway for the vertical migration of contaminants into a portion of the

Response to EPA Comments
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bedrock aquifer which may not be impacted. If the discrete zone sampling of ground-water from fractures in the lower portion of the bedrock corehole at BW105 indicate that contaminants are present, recommendations will be made to EPA to further assess the vertical extent of contamination at that location.

This was agreed upon during our conference call on August 9, 1990.

32 Page 25, 4.3

The length of core runs and feed pressure, etc. will be adjusted as required to maximize core recovery. Fracture zones will then be identified based upon subsequent hydraulic (water pressure) testing. Based on Serrine's experience on similar sites in the South Carolina Piedmont, the use of geophysical logging is unnecessary using this approach.

This was discussed during our conference call on August 9, 1990.

33

Holding times will be monitored carefully to assure that sample extraction and analysis is performed within the recommended time frames.

34 Page 27, 4.3

The need for abandoning a portion of this bedrock corehole will be determined by the Steering Committee based upon Serrine's recommendations depending upon the variations in contaminant concentrations observed in the analyses of ground-water samples collected from discrete fracture zones.

See response to Comment #31.

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35 Page 27, 4.4

The statements and arrows included on Figure 4.1 provide the rationale for where wells will be installed. In all cases, if water is not encountered in the saprolite, a bedrock well will be installed at the designated location.

36 Page 27, 4.4

An additional saprolite well will be installed and sampled at the toe of the steep slope NE of existing well SW3. The location will be in the general vicinity of proposed stream gaging stations SL3 and SL4, SW of the creek. Well construction specifications at this location will be in accordance with the approved P.O.P. Well installation, however, may be accomplished using hand tools and/or a portable tripod and drilling casing due to difficult access at this site. Well installation equipment will be subjected to the approved decontamination procedures. Construction methods will be documented in the field log book for this project. Samples collected from this well will be analyzed for VOC's.

EPA concurred with this approach during our conference call of August 9, 1990.

A bedrock well will be installed adjacent to SW3 or at a location Northwest of SW3. The actual location will be based upon accessibility. See response to Comment #26.

37 Page 28, 4.4

Based upon the installation and sampling of the additional saprolite well proposed in the response to Comment #36, these additional surface water/sediment samples are not necessary.

EPA concurred with this approach during our conference call of August 9, 1990.

Response to EPA Comments
Phase II RI/FS Work Plan
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Page 28, 4.4

If VOC's are detected in groundwater at HP103, monitoring well SW106/BW106 will be used to define the extent of the contaminant plume in this direction. The concentrations of contaminants detected at HP103 will be used to evaluate contaminant migration and attenuation in the saprolite aquifer in reference to concentrations observed at SW4. Proposed monitoring wells SW103/BW103 will not be installed in this scenario.

This approach was discussed and agreed upon during our conference call on August 9, 1990.

39

Page 29, Figure 4.1

The results of the analysis of ground-water samples collected from HP104 will be used to evaluate the presence of contaminants in the saprolite aquifer southwest of existing well SW4. A piezometer will also be installed in the completed Hydropunch boring to evaluate whether or not there is a component of ground-water flow southwest from SW4. If ground-water is present in the saprolite aquifer and there is a component of flow in this direction, a bedrock well has not been proposed. Based upon the levels of contaminants at SW4 and the nature (relative densities) of the contaminants detected, sampling and analysis of ground-water from the saprolite aquifer should provide adequate screening. A bedrock well will be installed if ground-water is not encountered in the saprolite. A saprolite/bedrock well pair will be installed if contaminants are detected at HP104.

This approach was discussed and agreed upon during our conference call on August 9, 1990.

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Page 29, Figure 4.1

We concur with the recommendation regarding the placement of well pair SW107/BW107.

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Page 27
Section 4.4

See response to Comments #22.

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Page 30
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See response to Comments 22 and 41.